## Message

From: Qian, Yaorong [qian.yaorong@epa.gov]

**Sent**: 2/22/2021 9:52:39 PM

To: Nguyen, Thuy [Nguyen.Thuy@epa.gov]
Subject: RE: Latest PFAS spreadsheets from QAO

Attachments: PFAS\_Data Summary\_Preliminary\_PR\_02032021-QAO-210222.xlsx

Sorry, Paul has been here talking about the liquid N2 for the last two hours 😉

Here is the summary results. The Tab for Product samples is updated as well. The two compounds, PFHxDA and PFODA, I believe, have some issues with standards. There is clearly a significant difference in the responses between the calibration standards and spiking standards at the same level. So recovery is included. The current values are several thousands percent. If I normalize relative to the amount in the spike solution (directly injected from the solution), the recoveries would be about 100%, clearly an indication of the standards may have an issue.

Thanks,

Yaorong

From: Nguyen, Thuy <Nguyen.Thuy@epa.gov>
Sent: Monday, February 22, 2021 3:54 PM
To: Qian, Yaorong <qian.yaorong@epa.gov>
Subject: RE: Latest PFAS spreadsheets from QAO

Will you have the spreadsheet for me today?

I can send the cover memo to Kimberly for her review and follow with the spreadsheet tomorrow.

Thanks Thuy

From: Qian, Yaorong <a href="mailto:square">sent: Monday, February 22, 2021 1:01 PM</a>
To: Nguyen, Thuy <a href="mailto:Nguyen.Thuy@epa.gov">Nguyen.Thuy@epa.gov</a>
Subject: RE: Latest PFAS spreadsheets from QAO

Will do.

From: Nguyen, Thuy < Nguyen.Thuy@epa.gov>
Sent: Monday, February 22, 2021 12:58 PM
To: Qian, Yaorong < qian.yaorong@epa.gov>
Subject: FW: Latest PFAS spreadsheets from QAO

Can you summarize it your way in your spreadsheet?

Thanks Thuy

From: Liang, Yan Ling < Liang. YanLing@epa.gov>
Sent: Monday, February 22, 2021 12:39 PM

To: Nguyen, Thuy < Nguyen. Thuy@epa.gov>; Qian, Yaorong < qian.yaorong@epa.gov>; Golden, Paul < Golden. Paul@epa.gov>

Cc: French, David <<u>French.David@epa.gov</u>>
Subject: FW: Latest PFAS spreadsheets from QAO

Everyone, please use this latest version of the preliminary product data, the previous summary dates with 1/6 analysis dates is outdated, these are the numbers sent over to David for peer review and where we have all available data for review.

PFOA was removed here, I agree with Yaorong that PFTeDa is likely not present (the numbers are reported in the summary table and can be removed). The recoveries for the first round of analysis 1/7 was high (439%), the second round (2/8) was lower and the values found for both container and production samples were much lower at 0.01 compared to the first round for PFTeDA.

Thanks Yan

From: Liang, Yan Ling

**Sent:** Thursday, February 18, 2021 7:02 PM **To:** French, David <French.David@epa.gov>

Cc: Qian, Yaorong <a href="mailto:qian.yaorong@epa.gov">qian.yaorong@epa.gov</a>; Golden, Paul <a href="mailto:Golden.Paul@epa.gov">Golden.Paul@epa.gov</a>>

Subject: RE: Latest PFAS spreadsheets from QAO

David, please peer review these numbers tomorrow. I will send you the other raw data files in following emails. I'm on CDO tomorrow so won't be on the computer much, if you have any question reach me by phone.

Paul, these will be coming your way next week sometime.

Thanks Yan

From: French, David < French. David@epa.gov > Sent: Thursday, February 18, 2021 1:38 PM

To: Liang, Yan Ling < Liang. YanLing@epa.gov >; Nguyen, Thuy < Nguyen. Thuy@epa.gov >; Golden, Paul

< Golden. Paul@epa.gov >; Qian, Yaorong < gian. yaorong@epa.gov >

Subject: RE: Latest PFAS spreadsheets from QAO

If you get them to me by this afternoon, I can have them reviewed before end of day tomorrow.

DAvid

From: Liang, Yan Ling < Liang YanLing@epa.gov > Sent: Thursday, February 18, 2021 1:35 PM

To: Nguyen, Thuy < Nguyen. Thuy@epa.gov>; Golden, Paul < Golden. Paul@epa.gov>; Qian, Yaorong

<<u>gian.yaorong@epa.gov>; French, David <French.David@epa.gov></u>

Subject: RE: Latest PFAS spreadsheets from QAO

Yes, the product results have currently not been updated yet. I have the final numbers with me and working through them to get ready for QA, I will send it over for peer review by end of today,

David would you mind peer reviewing the product numbers?

Thanks

Yan

From: Nguyen, Thuy < Nguyen. Thuy @epa.gov> Sent: Thursday, February 18, 2021 11:15 AM

To: Liang, Yan Ling <Liang. YanLing@epa.gov>; Golden, Paul <Golden. Paul@epa.gov>; Qian, Yaorong

<gian.yaorong@epa.gov>; French, David <French.David@epa.gov>

Subject: RE: Latest PFAS spreadsheets from QAO

Yan

The results for the product in your recent spreadsheet are incorrect, right?

Thanks Thuy

From: Liang, Yan Ling <<a href="mailto:liang.YanLing@epa.gov">liang.YanLing@epa.gov</a>>
Sent: Wednesday, February 17, 2021 4:57 PM

To: Nguyen, Thuy < Nguyen. Thuy@epa.gov>; Golden, Paul < Golden. Paul@epa.gov>; Qian, Yaorong

<gian.yaorong@epa.gov>; French, David <French.David@epa.gov>

Subject: RE: Latest PFAS spreadsheets from QAO

I've added %RSD values and calculations to both excel files.

Paul, please work off of these files tomorrow.

Thanks

Yan

From: Liang, Yan Ling

Sent: Wednesday, February 17, 2021 4:00 PM

To: Nguyen, Thuy <Nguyen. Thuy@epa.gov>; Golden, Paul <Golden.Paul@epa.gov>; Qian, Yaorong

<<u>qian.yaorong@epa.gov</u>>; French, David <<u>French.David@epa.gov</u>>

Subject: RE: Latest PFAS spreadsheets from QAO

Ok I will calculate those in the latest spreadsheets. Do you also want them added to the summary sheet Thuy?

Paul, please disregard the spreadsheets I sent you at 3:11pm, I will send you new ones with RSD values included.

**Thanks** 

Yan

From: Nguyen, Thuy < Nguyen. Thuy @epa.gov > Sent: Wednesday, February 17, 2021 3:46 PM

To: Liang, Yan Ling <Liang. YanLing@epa.gov>; Golden, Paul <Golden. Paul@epa.gov>; Qian, Yaorong

<<u>qian.yaorong@epa.gov</u>>; French, David <<u>French.David@epa.gov</u>>

Subject: RE: Latest PFAS spreadsheets from QAO

I calculate the %RSD based previous spreadsheet. We need to revise that now that we have new numbers, When you average the numbers for reported, please calculate %RPD or %RSD so I can report them Thanks

Thuy

From: Liang, Yan Ling < Liang, YanLing@epa.gov > Sent: Wednesday, February 17, 2021 3:33 PM

To: Golden, Paul < Golden. Paul@epa.gov>; Qian, Yaorong < gian. yaorong@epa.gov>; Nguyen, Thuy

< Nguyen. Thuy@epa.gov>; French, David < French. David@epa.gov>

Subject: RE: Latest PFAS spreadsheets from QAO

I agree with Paul's comment on the standard deviations, I did not calculate those and we only did dups in the 12/30 data with N=2.

From: Golden, Paul < Golden. Paul@epa.gov > Sent: Wednesday, February 17, 2021 2:50 PM

To: Qian, Yaorong <qian.yaorong@epa.gov>; Nguyen, Thuy <Nguyen.Thuy@epa.gov>; Liang, Yan Ling

<Liang.YanLing@epa.gov>; French, David <French.David@epa.gov>

Subject: RE: Latest PFAS spreadsheets from QAO

I am OK with that notation.

Paul

From: Qian, Yaorong <<u>qian.yaorong@epa.gov</u>> Sent: Wednesday, February 17, 2021 2:48 PM

To: Golden, Paul <Golden.Paul@epa.gov>; Nguyen, Thuy <Nguyen.Thuy@epa.gov>; Liang, Yan Ling

<Liang.YanLing@epa.gov>; French, David <french.David@epa.gov>

Subject: RE: Latest PFAS spreadsheets from QAO

For the limitations of the results, how about the following:

All results of the rinsates (reported as ppb, or ng/ml of rinsate) are estimate using the attached method, due to the fact that the values would change depending on the type and the amount of the rinsing solvent, size of containers, rinsing time and temperature, etc.

From: Golden, Paul < Golden. Paul @epa.gov > Sent: Wednesday, February 17, 2021 2:24 PM

To: Nguyen, Thuy < Nguyen. Thuy@epa.gov>; Liang, Yan Ling < Liang. YanLing@epa.gov>; French, David

<French.David@epa.gov>

**Cc:** Qian, Yaorong <<u>qian.yaorong@epa.gov</u>> **Subject:** RE: Latest PFAS spreadsheets from QAO

Thuy,

Here are some of my thoughts to consider in yellow (with the exception of the footnote in yellow on page 2, not sure how/why that's there).

I expect there will also be other flags on the final spreadsheet(s) to be attached.

Obviously we will also need to remove (or edit) any preliminary results verbiage in the final report.

Paul

From: Nguyen, Thuy < Nguyen. Thuy @epa.gov > Sent: Wednesday, February 17, 2021 11:24 AM

To: Golden, Paul <Golden.Paul@epa.gov>; Liang, Yan Ling <Liang.YanLing@epa.gov>; French, David

<French.David@epa.gov>

**Cc:** Qian, Yaorong <<u>qian.yaorong@epa.gov</u>> **Subject:** RE: Latest PFAS spreadsheets from QAO

Paul

Can you send me the report with your comments?

Thanks Thuy

From: Golden, Paul < Golden. Paul@epa.gov>
Sent: Wednesday, February 17, 2021 11:08 AM

**To:** Liang, Yan Ling <<u>Liang.YanLing@epa.gov</u>>; French, David <<u>French.David@epa.gov</u>> **Cc:** Qian, Yaorong <qian.yaorong@epa.gov>; Nguyen, Thuy <Nguyen.Thuy@epa.gov>

Subject: Latest PFAS spreadsheets from QAO

On the checks and recoveries spreadsheet I have placed flags for CCV and outside calibration range issues.

On the report I have placed some additional comments to consider adding.

Yan, you may need to get the thumb drive to get/find the latest Sciex instrument reports to verify proper integration of the CCV data. I suspect you guys have already looked hard at the Cal Curve data, and the reportable data integrations.

Paul